

TITLE: APPLIANCE CONSOLE BOTTOM ATTACHMENT

BACKGROUND OF THE INVENTION

Household appliances, such as a clothes washing machine or a clothes dryer,
5 normally have a cabinet with a control console mounted on top of the cabinet. Prior art
consoles conventionally are mounted to the top of the cabinet with hardware, including
screws. For ease of installation, the screws are often times located on the front of the
console, and thus are visible to a person using the appliance. Such prior art mounting
hardware adds to the cost of the appliance due to the materials and labor required for
10 mounting the console onto the cabinet. The mounting hardware is also unsightly if located
on the front of the console.

Prior art consoles may also be mounted without the use of mounting hardware and
tools. As seen in U.S. Patent No. 5,971,510, a console may be mounted by tilting the
console forwardly so that front feet extend into the front slots and then rotating the console
15 rearwardly so that rear feet extend into the rear slots. The '510 utilizes forwardly disposed
recesses on both the front and rear feet. Such prior art mounting hardware is particularly
useful in combination with a console whose base is substantially rectangular but has
limited utility for a base that is curved or deviates from the rectangular shape.

Accordingly, a primary objective of the present invention is the provision of a
20 console which is mounted to an appliance without the use of hardware.

A further objective of the present invention is the provision of a console which is
quickly and easily attached to the top of an appliance.

Another objective of the present invention is the provision of a console which can
be mounted to an appliance without the use of tools.

25 A further objective of the present invention is the provision of a console having
downwardly extending feet adapted to be received in corresponding slots in the top cover
of the cabinet such that the console is substantially free from forward and rearward
movement relative to the top cover of the cabinet.

A further objective of the present invention is the provision of a console having
30 downwardly extending feet adapted to be received in corresponding slots in the top cover

of the cabinet such that the console is substantially free from left and right movement relative to the top cover of the cabinet.

A still further objective of the present invention is the provision of a console having a curved front section that may be mounted to an appliance.

5 A still further objective of the present invention is the provision of a console that may be mounted to an appliance using lateral sliding movement.

A still further objective of the present invention is the provision of a console that utilizes first and second feet that have opposite recesses relative each of the feet.

10 These and other objectives will become apparent from the following description of the invention.

BRIEF SUMMARY OF THE INVENTION

The appliance console of the present invention includes at least a pair of first and second downwardly extending feet at opposite ends of the console. The feet are adapted to
15 be received in slots in the top cover of the appliance cabinet so as to mount the console to the top cover of the cabinet without mounting hardware or the use of tools.

In mounting the console to the top cover of the cabinet, the front feet are inserted into the corresponding slots in the top cover of the cabinet. The console is then moved laterally such that feet are received into a first edge of the slots. When the console is
20 obstructed by the first edge, the user continues to exert force upon the console creating a slight buckle. The user can then fit the second feet into corresponding slots in the top cover and release the console so that the second feet can engage a second edge of the corresponding slots.

25 BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of an appliance with the console of the present invention.

Figure 2 is a side sectional view taken along line 2-2 of Figure 1 showing the console fully mounted to the cabinet with a back plate secured thereto.

30 Figure 3 is a perspective view taken along line 3-3 of Figure 2.

Figure 4 is an exploded perspective view of the console in position over the top cover with the bottom surface of the top cover shown.

Figure 5 is a bottom view of the top cover with the console attached.

Figure 6 is a sectional view taken along line 6-6 of Figure 5.

5 Figures 7-10 are enlarged views of the feet of Figure 6.

Figures 11-13 are perspective views sequentially showing the console being attached to the top cover.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

10 As seen in Figure 1, an appliance, such as a clothes washer 10, generally includes a cabinet 12 with a top cover 14. A console 16 having control indicia for operating the appliance is mounted on the top cover 14 of the cabinet 12. Preferably, the console 16 is manufactured as a unitary body.

15 Figures 2-4 illustrate that the console 16 includes a front 18, a back 20, a top 22, a bottom 24, a left side 26, and a right side 28. Extending downwardly from the bottom 24 of the console 16 are a pair of first feet or left feet 30 and a pair of second feet or right feet 32. The first and second feet 30, 32 preferably are located at the opposite ends of the console 16, and are adapted to be received in corresponding slots or holes 34 in the top cover 14 of the cabinet 12.

20 Front feet 38, 40 are spaced along the bottom 24 of the console 16. As best seen in Figure 5, the front 18 of the console 16 is curved or arced. A center front foot 38 is located at the top of the curve. Intermediate front feet 40 are located at a position approximately between the left side 26 and the center front foot 38 and the right side 28 and the center front foot 38. The front feet 38, 40 are adapted to be received in corresponding slots 34 in
25 the top cover 14 of the cabinet 12.

The slots 34, as seen in Figure 4, have a first edge 42 and a second edge 44 illustrated as left and right edges, respectively.

Each of the first feet 30, center foot 38, and intermediate feet 40 include a first recess 46 adapted to engage the first edge 42 of the respective slot 34. The second feet 32
30 have a second recess 48 adapted to engage the second edge 44.

Enlarged Figures 7-10 illustrate the details of the attachment between the console and the top cover as illustrated in Figure 6. Each of the feet, 30, 38 and 40 have a heel portion 50. The heel portion 50 may be sloped so as to permit the foot 30, 38, 40 to pass into the respective slot 34. The sloped heel portion 50 also facilitates removal of the console 16 from the top cover 14 of the cabinet 12.

Each of the feet, 30, 38 and 40 have a forward portion 52. The forward portion 52 may be ramped so as to assist in movement of the console 16 laterally from the slot 34 until the feet are at a rest position with the foot recess 46 engaging the first edge 42 of the slot 34.

The second feet 32 may have a sloped heel portion 50 and sloped forward portion 52. These sloped portions 50, 52 facilitate the insertion and removal of the second feet 32 from the top cover 14 of the cabinet 12.

The feet 30, 32, 38, 40 may have various features adjusted to facilitate the attachment and removal of the console 16 from the top cover 14 of the cabinet 12. These features include but are not limited to the slope of the heel portion 50, the slope of the forward portion 52, the height of the feet, the placement of the feet relative the top cover 14 of the cabinet 12, and the shape of the feet altered to conform to the shape of the top cover 14.

The slots 34 are typically rectangular but may have the shape altered to facilitate the attachment and removal of the console 16 from the top cover 14 of the cabinet 12.

Figures 11-13 illustrate the sequential attachment of the console 16 to the top cover 14. As in Figure 11, the bottom 24 of the console 16 is spaced closely to the top cover 14 in alignment with the corresponding slots 34. In this position the console 16 is laterally off-center of the top cover 14. The first feet 30, center front foot 38, and intermediate front feet 40 are then placed into corresponding slots 34. As seen in Figure 12, once the feet 30, 38, 40 are inside the slots 34, the console 16 may be slid laterally. While being slid, the console 16 moves downward relative the top cover 14 as the forward slope 52 of feet 30, 38, 40 directs the console to a position where the first recess 46 is in connection with the first edge 42 of the slot 34. The first edges 42 of the slots 34 stop the relative movement of the console 16 at the back of first recesses 46. In this position, the console 16 is flexible

between the intermediate front 40 adjacent the second feet 32 and it buckles under a user's force slightly upward to provide for fitting of the second feet 32 into the respective slot 34. As seen in Figure 13, once the second feet 32 are in the slots 34 and the force is removed, the console 16 regains its original or static shape inside the slot 34 with the second feet 32 in connection with the second edges 44. Thus, the console 16 is mounted on the cabinet 12 without the use of hardware, such as screws, and without the use of tools.

A back plate 60 is mounted to the back 20 of the console 16 and the back of the top cover 14 using screws 62. The back 20 of the console 16 includes bosses 64 for receiving the screws 62. The back plate 60 provides additional structural security and integrity to the assembled console 16 and cabinet 12, and seals off the console contents from user access.

If it is necessary to remove the console 16 from the cabinet 12, the top screws 62 are removed and the back plate 60 can remain attached to the top cover 14. Then the second side 28 of console 16 is buckled toward the center of the top cover 14 creating clearance between second feet 32 and the respective slots 34 for disengagement. With clearance created between the second feet 32 and the respective slots 34, the second side 28 of console 16 can be raised up slightly thereby completing the disengagement of feet 32. With the second feet 32 disengaged, the console 16 can be moved laterally in the direction from center toward the second side thereby disengaging the first feet 30, the center front foot 38, and the intermediate front feet 40 from the slots 34 and permitting the console to be removed from the top cover 14.

Whereas the invention has been shown and described in connection with the preferred embodiments thereof, it will be understood that many modifications, substitutions, and additions may be made which are within the intended broad scope of the following claims. From the foregoing, it can be seen that the present invention accomplishes at least all of the stated objectives.